

Amdt. dated January 3, 2006
Reply to Office action of October 31, 2005

Serial No. 09/972,386
Docket No. SJO920010037USI
Firm No. 0037.0118

REMARKS/ARGUMENTS

Claims 1-26 are pending in the application. Claims 1, 10, 23, 25 and 26 have been amended. Reconsideration is respectfully requested. Applicant submits that the pending claims are patentable over the art of record and allowance is respectfully requested of claims 1-26.

Claims 1, 10, 23, and 25 are objected to because of informalities. Applicants have amended claims 1, 10, 23, and 25 to overcome the objection and place the claims in better form.

Claims 25-26 are rejected under 35 U.S.C. 101. Applicants respectfully traverse, but, in order to expedite prosecution, Applicants have amended claims 25-26.

Claims 1-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim (U.S. Pub. No. 2002/0069245) in view of Blumenau et al. (U.S. Patent No. 6,810,396). Applicants respectfully traverse.

Claim 1 describes, for example, a filter in communication with a port driver and a class driver, the filter intervening to block claiming of one or more of the storage devices by the class driver (e.g., Figure 36). The class driver issues a claim request to the port driver for a selected one of the storage devices, and the port driver issues a response to the class driver. The filter intercepts the response from the port driver, determines whether the selected storage device has been assigned to the selected digital data processor, and, based on the determination, determines whether to allow the response from the port driver to pass to the class driver (e.g., Specification, pages 139-141).

The Office Action submits that the Kim patent application does not specifically teach a filter in communication with the port driver and the class driver, the filter intervening to block claiming of one or more selected storage devices by the class driver. The Kim patent application describes a disk class driver and a NAD port driver (Figure 20B). The disk class driver passes an IRP with an SRB to the NAD port driver and NAD bus driver, which deliver the CDB extracted from the SRB to the NIC to complete a device I/O to a NAD device (page 11, paragraph 145, Figure 23B). Also, the Kim patent application describes a NAD device is comprised of the NAD controller (page 5, paragraph 89) that executes I/O commands from the host's NAD device driver. A filter program can be installed on the NAD controller to provide

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access control, access share, and access right transfer (page 6, paragraph 94). Thus, the filter program is installed on the NAD device, and the NAD device driver on the host can request to execute the filter program at the time of I/O command execution (page 6, paragraph 94). By teaching that the filter program is installed on the NAD controller of the NAD device and that the filter program is executed by a request from the NAD device driver on the host, the Kim patent application teaches away from the claimed filter driver, which is in communication with the class driver and port driver and which intercepts the response from the port driver. In addition, with the Kim patent application, there is no need for the filter program to intercept any response because the filter program execution is specifically requested, and so the Kim patent application teaches away from the claimed subject matter. Also, the filter program of the Kim patent application does not determine whether to allow the response from the port driver to pass to the class driver.

The Blumenau patent describes a filter adapter unit that controls access to disk storage devices (Col. 3, line 62-Col. 4, line 2). The filter adapter unit uses a volume configuration management database (VCMD) (Col. 4, lines 30-31) that includes a filter table for determining which HBAs have access to which of the LUNs (Col. 4, lines 60-65). The filter adapter unit translates packets received from the network into data blocks for forwarding to disk adapters and performs a filtering function (Col. 5, lines 8-16). The filter adapter does not teach or suggest the claimed filter driver. Claim 1 describes that a digital data processor includes a port driver, a class driver, and a filter that intercepts a response from the port driver to the class driver and determines whether to allow the response from the port driver to pass to the class driver. On the other hand, the filter adapter of the Blumenau patent does not *intercept* a response from the port driver to a class driver. Instead, the filter adapter sits between a host and disk storage (FIG. 1), and so the filter adapter is not in a position to intercept a response from the port driver to the class driver.

Furthermore, the Office Action submits that the Kim patent application and the Blumenau patent do not specifically teach the filter intercepting the response from the port driver, and, based on the determination, determining whether to allow the response from the port driver to pass to the class driver. The Office Action further submits that it would have been obvious to prohibit communication between the port driver and class driver. Applicants respectfully traverse. Because the Kim patent application teaches that a filter that is executed by

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a request from the NAD device driver on the host, the Kim patent application teaches away from the claimed filter driver, which *intercepts* the response from the port driver. The Blumenau patent teaches a filter unit that resides between a host and storage and so is not able to *intercept* a response from a port driver. If the Kim patent application and Blumenau patent were combined, the result would be to have a filter unit separate from the host that is not capable of intercepting responses from the port driver.

Thus, Applicants respectfully submit that because the Kim patent application and Blumenau patent describe filtering without intercepting claim requests, these references teach away from the claimed interception of claim requests and the claimed subsequent processing.

Thus, claim 1 is not taught or suggested by the Kim patent application or the Blumenau patent, either alone or in combination.

Dependent claims 2 and 4-9 incorporate the language of independent claim 1 and add additional novel elements. Therefore, dependent claims 2 and 4-9 are not taught or suggested by the Kim patent application or the Blumenau patent, either alone or in combination, for at least the same reasons as were discussed with respect to claim 1.

Claim 10 describes, for example, the filter in communication with the port driver and the class driver, the filter intervening to block claiming of storage devices other than those identified by the manager digital data processor, the class driver issuing a claim request to the port driver for a selected one of the storage devices, the port driver issuing a response to the class driver, the filter blocking such claiming by intercepting the response from the port driver, determining whether the selected storage device has been assigned to the selected digital data processor, and in response to determining that the selected storage device has not been assigned, returning a failure code to the class driver in response to its invocation of the port driver for purposes of claiming a storage device (e.g., Specification, pages 139-141). Claim 10 is not taught or suggested by the Kim patent application or the Blumenau patent, either alone or in combination, for at least the same reasons as were discussed with respect to claim 1.

Dependent claims 11-14 incorporate the language of independent claim 10 and add additional novel elements. Therefore, dependent claims 11-14 are not taught or suggested by the Kim patent application or the Blumenau patent, either alone or in combination, for at least the same reasons as were discussed with respect to claim 10.

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Claim 15 describes, for example, the filter in communication with the port driver and the class driver, the filter intervening to block claiming of storage devices other than those identified by the manager digital data processor, the class driver issuing a claim request to the port driver for a selected one of the storage devices, the filter blocking such claiming by intercepting the claim request from the class driver to the port driver for purposes of claiming a storage device, wherein, in response to determining that the selected storage device has not been assigned to the selected digital data processor, the filter blocks the claim request to prevent the class driver from creating a device object for the selected storage device (e.g., Specification, pages 145-146).

Neither the Kim patent application nor the Blumenau patent teach or suggest that a claim request from the class driver is intercepted. Instead, in the Kim patent application, filtering is performed when the filter program is executed by a request from the NAD device driver on the host. In the Blumenau patent, the filtering is performed by a filter adapter translates packets received from the network into data blocks for forwarding to disk adapters. Applicants respectfully submit that because the Kim patent application and Blumenau patent describe filtering without intercepting claim requests, these references teach away from the claimed interception of claim requests and the claimed subsequent processing.

Thus, claim 15 is not taught or suggested by the Kim patent application or the Blumenau patent, either alone or in combination.

Dependent claims 16-19 incorporate the language of independent claim 15 and add additional novel elements. Therefore, dependent claims 16-19 are not taught or suggested by the Kim patent application or the Blumenau patent, either alone or in combination, for at least the same reasons as were discussed with respect to claim 15.

Claim 20 describes, for example, a filter in communication with the port driver, the filter intercepting the request packet from the plug-n-play manager to the port driver and blocking access to selected ones of the storage devices by determining which ones of the storage devices are to be masked and removing from the data structure at least selected data pertaining those determined storage devices, wherein removal of the selected data prevents the class driver from creating device objects for the determined storage devices (e.g., Specification, pages 146-148). Neither the Kim patent application nor the Blumenau patent teach or suggest intercepting the request packet from the plug-n-play manager to the port driver and blocking access to selected ones of the storage devices by determining which ones of the storage devices are to be masked

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and removing from the data structure at least selected data pertaining those determined storage devices, wherein removal of the selected data prevents the class driver from creating device objects for the determined storage devices. Applicants respectfully submit that because the Kim patent application and Blumenau patent describe filtering without intercepting request packets from a plug-n-play manager to the port driver, these references teach away from the claimed interception of request packets and the claimed subsequent processing.

Thus, claim 20 is not taught or suggested by the Kim patent application or the Blumenau patent, either alone or in combination.

Dependent claim 21 incorporates the language of independent claim 20 and adds additional novel elements. Therefore, dependent claim 21 is not taught or suggested by the Kim patent application or the Blumenau patent, either alone or in combination, for at least the same reasons as were discussed with respect to claim 20.

Claim 22 describes, for example, a filter in communication with the port driver and the class driver, the filter intervening to block claiming of one or more of the storage devices by the class driver by intercepting a request packet having an associated data structure issued to the port driver and blocking access to selected ones of the storage devices by determining which ones of the storage devices are to be masked and removing from the data structure at least selected data pertaining those determined storage devices, wherein removal of the selected data prevents the class driver from creating device objects for the determined storage devices (e.g., Specification, page 146-148). The Office Action submits that the Kim patent application as modified does not specifically teach the claimed plug-n-play manager. Applicants respectfully submit that because the Kim patent application and Blumenau patent describe filtering without intercepting request packets from a plug-n-play manager to the port driver, these references teach away from the claimed interception of request packets and the claimed subsequent processing.

Claims 23-26 are not taught or suggested by the Kim patent application or the Blumenau patent, either alone or in combination, for at least the same reasons as were discussed with respect to claims 1 and 22.

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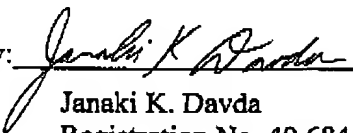
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Conclusion

For all the above reasons, Applicant submits that the pending claims 1-26 are patentable over the art of record. Applicants have not added any claims. Nonetheless, should any additional fees be required, please charge Deposit Account No. 09-0466.

The attorney of record invites the Examiner to contact her at (310) 553-7973 if the Examiner believes such contact would advance the prosecution of the case.

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